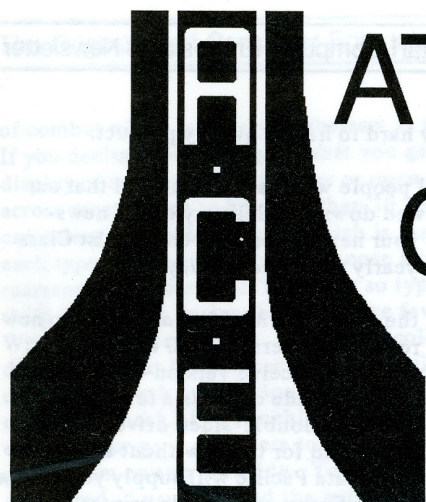




ATARI COMPUTER ENTHUSIASTS

The Original ACE Monthly Newsletter

MAY 1987

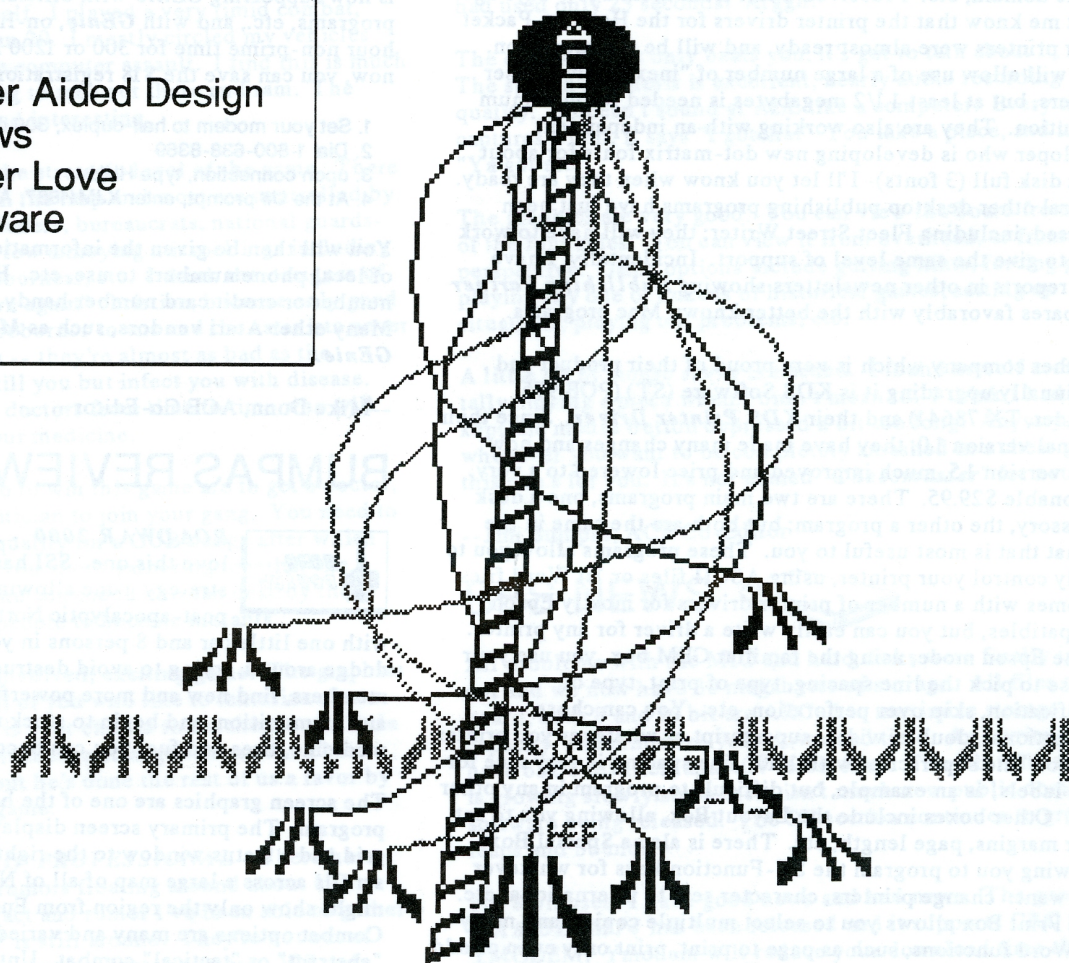
3662 VINE MAPLE DRIVE, EUGENE, OR 97405

Mike Dunn, Jim Bumpas, Larry Gold -- Co-editors

Buddy Hammerton -- Production Manager

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MAY 1987
MAY 1987

News and Reviews



First of all, I want to congratulate Current Notes, the newsletter of several user groups in the Washington, D.C. area for winning the 2nd ANTIC! user group awards. Under the able direction of Joe Waters, as well as Frank Summers and Jack Holtzhauer, their newsletter started shortly after ours and recently has turned into a magazine (68 pages in the last issue) of interesting Atari related items. Keep up the good work!

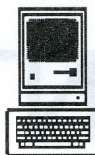
It is always nice to hear from vendors who are continually trying to improve their products. Soft Logik, makers of *Publishing Partner* (ST), is one. Their product has only been out a short time, and already many updates have been made, and put on BBS's for owners to download. They have greatly improved their dot-matrix fonts, added some, and have added many new printer drivers. Indeed, if you give them the info, they have even made some drivers for some local members with unusual printers. They have put their font makers in the public domain, etc. I received a call from them a few days ago to let me know that the printer drivers for the Hewlett-Packard Laser printers were almost ready, and will be released soon. This will allow use of a large number of "inexpensive" laser printers, but at least 1 1/2 megabytes is needed for maximum resolution. They are also working with an independent developer who is developing new dot-matrix fonts for about \$15 a disk full (3 fonts)- I'll let you know when they are ready. Several other desktop publishing programs have just been released, including Fleet Street Writer; they will have to work hard to give the same level of support. Incidentally, I have read reports in other newsletters showing *Publishing Partner* compares favorably with the better known Mac programs.

Another company which is very proud of their product and continually upgrading it is KDS Software (ST) (POB 975, Leander, TX 78641) and their *KDS Printer Driver*. Since their original version 1.0, they have made many changes and now have version 1.5, much improved and price lowered to a very reasonable \$29.95. There are two main programs, one a desk accessory, the other a program; but both are the same in the format that is most useful to you. These programs allow you to easily control your printer, using ASCII files or 1st Word files. It comes with a number of printer drivers for mostly Epson compatibles, but you can easily write a driver for any printer. In the Epson mode, using the familiar GEM box, you use your mouse to pick the line spacing, type of print, type of justification, skip over perforation, etc. You can chose proportional, double-width, superscript or whatever your printer can do. The superscript with 1/10" line spacing is very nice for disk labels, as an example, but difficult to program in any other way. Other boxes include the Layout Box, allowing you to set your margins, page length, etc. There is also a Special Box allowing you to program the ST-Function keys for whatever you want: change printers, character sets to international, etc. The Print Box allows you to select multiple copies, and many 1st Word functions, such as page to print, print only even or odd pages, remove headers or footers, etc. The final box, The File Selector has many more functions, including a print disk directory function, copy file functions, use keyboard or mouse to make your selections, a file selector box, and other utilities.

A very useful tool to really help you control your printer from

a company working very hard to have a quality product.

There have been several people who have mentioned that our use of bulk mail has slowed down the delivery of the newsletter, if you would like your newsletter delivered by 1st Class Mail in an envelope the yearly rate is now \$17/year.



Data Pacific, the makers of *Magic Sac* have two new upgrades for registered users, for \$10 and the original disks you will receive version 4.0 of the boot program, this upgrade corrects a few bugs and now allows you to use double-sided drives for increased storage. And for those without an ImageWriter printer, for \$45 Data Pacific will supply you with a printer driver that will let any Epson compatible printer emulate an Apple ImageWriter. Note: Older Citoh and NEC printers will work with the *Magic Sac* for all but high resolution printing.

Atari Corp. and *Genie*, the General Electric Online Network, have teamed up to give user group members a deal. Atari Corp. is now supporting *Genie* with official RoundTables conferences, programs, etc., and with *Genie*, on-line charges are only \$5 an hour non-prime time for 300 or 1200 BAUD. If you sign up now, you can save the \$18 registration fee. To sign on:

1. Set your modem to half-duplex, 300 or 1200 Baud
2. Dial 1-800-638-8369
3. upon connection, type HHH
4. At the U# prompt, enter XJM11887, Atari <RETURN>

You will then be given the information you need to join, a list of local phone numbers to use, etc. Have you checking account number or credit card number handy, if you want to sign on. Many other Atari vendors, such as *Michtron*, are also support *Genie*.

--Mike Dunn, ACE Co-Editor

BUMPAS REVIEWS



ROADWAR 2000 - All you Mad Max fans will love this one. SSI has produced an excellent strategy game allowing you to try to survive in a post-apocalyptic North America. You begin with one little car and 8 persons in your "gang". At first you dodge around, trying to avoid destruction. But as you add gang members, find new and more powerful vehicles, find weapons and ammunition, and begin to stock up supplies of food, medicine, tires and fuel you can become a little bolder.

The screen graphics are one of the best features of this program. The primary screen display shows an 11x12 hex map grid and a status window to the right of this map. The screen scrolls across a large map of all of North America. One screen might show only the region from Eugene to Vancouver, B.C. Combat options are many and varied. You can choose "abstract" or "tactical" combat. Until you've reached the maximum of 15 vehicles permitted to your gang (you begin with a maximum of 6 permitted vehicles), you'll need to execute tactical combat because each tactical victory increases your maximum vehicle allowance by one. Abstract combat reports only the result of vehicle ramblings and crew fire. After choosing tactical combat you can still select a speeded up form

of combat which is nearly as abstract as the "abstract" choice. If you decline speeded up combat you get a full screen graphic display of terrain (city, highway or open country) which scrolls across what seems to be more than 30 screens of terrain. You can select a "standard" map, which is the same every time for each type of scene, or you can choose a random map which rearranges the features. The 19 or so types of vehicles all have their distinctive design, but there are fewer pictures of wrecks. Wrecks are always autos -- different colors and facing different directions. But if you wreck a semi-trailer truck or a motorcycle, the wreck symbol looks like a little wreck of a car. You can deploy each of your vehicles individually. You may deploy each of your gang members to any vehicle desired and may place them on top or inside. You may distribute your weapons as desired. I usually used the automatic deployment of men and weapons, but I always deployed my own vehicles.

After deployment is complete, the action begins. Movement first, then a combat phase, until all the vehicles on one side are wrecks. Some of the vehicles move very fast at speeds up to 160 and more. Sometimes a vehicle will be going so fast it can't avoid a collision with a building or some boulders or another vehicle and will wreck itself. I played a very timid combat, never travelling faster than 20. I mostly circled my vehicles and stopped to receive the computer assault. I find this is much more successful than trying to race out there and ram. The combat is very dynamic and interesting.

Even more interesting is the strategic level of the game. There are more than 100 cities on the map and most are controlled by other gangs, including invaders, bureaucrats, national guardsmen, "gansters" (one of a few annoying misspellings including "Armarillo"), satanists, reborners, etc. I think the designer of this game might be a "born again" christian, because only good things happen to you are reborn towns and the satanists never give up trying to hurt you -- they're almost as bad as the mutants which not only kill you but infect you with disease. Luckily, you come across doctors from time to time who will trade you antitoxin for your medicine.

The things you need to do to win this game are to get a doctor, a drill sergeant and a politician to join your gang. You need to control enough cities to qualify for a GUB badge after which gov't agents will contact you about gathering together the 8 scientists spread across the continent who can destroy the plague which is causing people to become mutants.

ROADWAR 2000 is an involved, exciting game. The graphics are excellent. And for all of you who like to fantasize about Mad Max scenarios, this is your chance to act them out a little bit -- and safely. It might seem a strange fantasy for a born again christian to have, but he's done the rest of us a favor by producing an enjoyable game.



MORE ON VIP PROFESSIONAL - There have been a lot of rumors floating around about VIP. Here's some fact and rumor I've been able to gather together. VIP is still around. They're not out of business. They do not market products anymore. VIP only develops products. ISD is marketing **VIP Professional**, and yes, they are considering marketing a Lotus v.2 release compatible for the ST (I hope they do!). ISD does have a "power" text version of the **GEM VIP**. This is a new program which has all of the enhanced features of the GEM version (i.e.,

improved I/O, improved storage, improved math routines, etc.). It lacks only the GEM interface. I am informed by a source inside ISD that Atari Corp. is indeed negotiating for marketing rights for **VIP Professional**.

HINT: I've noticed that the **GEM VIP** seems to print spreadsheet data to certain printers more slowly than it should. If you put up a small printer buffer equal or greater in size than the information you're printing, you'll find the output to the printer much improved.



CHESSMASTER 2000 - Here's another 'Year 2000' game. A chess game from Electronic Arts. This is the game which won the 1986 PC chess competition. It is very tough. I'm only an

intermediate player, but I used to be able to beat 8-bit chess games at their lowest levels. So far, I've not come close to winning against this one. There's a clock on the players. The computer plays very quickly. The 8-bit games might take all night to make a play. I was humiliated on one game: After I was check-mated I looked at the clock. I had used only about 15 minutes on the clock. A quick game, right? The computer had used only 23 seconds! Arggh!

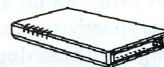
The computer not only beats you, it's got to talk about it, too. The speech synthesis is excellent, nearly audio recording quality. It doesn't sound at ALL like a computer. Every time it captures a unit, it says "I gotcha!" You take a piece, and it says "Ya got me!"

The graphics are very good. You can view the board from any of the four sides. You can view it from overhead, or from a 3D perspective. Game options include getting hints, forcing plays, playing any one of dozens of historical games, setting up situations, playing out problems, etc.

A little bit of mouse savvy is needed. I found myself accidentally moving a piece when I didn't mean to. I think I had just kept the mouse button depressed a bit too long. Anyway, whenever you want to be completely smashed in a chess game, this one's for you. It's not named "**Chessmaster**" for nothing!

--Jim Bumpas, ACE Co-Editor

BBS NEWS



All problems with the MIO and hard disks were finally ironed out and we now have 30 megabytes of storage. All files on the board, both 8 and 16 bit are ARCed to maximize storage capacity, and minimize your download time. As I write this we have 652 8 bit files, and 404 16 bit files. The 8 bit file section is growing slowly since there isn't much new public domain software being released. The ST section continues to grow by leaps and bounds.

For 8 bit users I have good news and bad news. The good news is **AMODEM74** has been released and it supports CRC and YMODEM! Ymodem will reduce your download time about 10% for a local call, 50% on PC Pursuit, and anywhere between those two figures for a long distance call. The bad news is currently only two Atari BBS programs have Ymodem: **OASIS** and **ST Forem**. I suspect many of the 8 bit BBS's will have Ymodem shortly, as the source code is readily available.

People have been trying to get Michtron to put in Ymodem for months, but to no avail. Of course if you call an MS-DOS or CP/M BBS, you can use Ymodem -- they've had the capability for a long time. I suspect **A MODEM 74** will replace *Express* as the standard for 8 bit terminals. Keith Ledbetter, author of *Express*, has gone to work for ICD, and reportedly will not update *Express* until this summer, if then.

I had the opportunity to call a BBS using a beta version of *Michtron 2.1*. As you may know, SYSOPs and users alike have been clamoring for changes for over 6 months now. This is their answer, and it seems they paid very little attention to the complaints. There's still no Ymodem, so PC Pursuit users will still take twice as long to upload and download files as on an *ST Forem* or *OASIS BBS*. You can now look at what message a reply is to, but you still can't back up one message. If you check for mail addressed to you, it will still lose the new message pointer to all messages. When you log on, you get the table of message activity that was in the 1.7 version, and are sent straight to the message base section. However, if you want to read new messages, you must exit, then re-enter to use the <N>ew command. They did add one important feature, the ability to tell what files are new since you last logged on. Files are now numbered sequentially, with no consideration for what SIG they are in. The BBS keeps track of the last file number you looked at, so checking new files simply means listing the file numbers entered since you last logged on. I have no idea what happens when the SYSOP deletes a file.

When you call a BBS, you will find 3 types of programs, public domain, freeware/shareware, and commercial. Public domain means that you can copy and distribute the program as much as you want. The author has given the program to the public and expects no money in return. Freeware/shareware are *NOT* the same. In this case, the author has taken a considerable risk to release a program and relies on your honesty to pay for it if you use it. The advantages to you are tremendous. You get to try the program first, and you are only expected to pay for it if it is useful to you. The price requested for the program is considerably less than if it had been sold as a commercial product -- the author doesn't have to pay for advertising, printing, packaging, etc. These programs tend to be as good or better as their commercial counterparts for a fraction of the price. The third type of program on a BBS is a commercial program. Like freeware/shareware programs, using these programs without paying for them deprives the author of an income. Programmers have to make a living just like the rest of us. When you use a freeware/shareware or commercial program without paying for it, you are making it difficult to impossible for the programmer to continue writing. If you want to see a programmer write other software, then pay for what you use!

It is often hard to convince oneself to pay for a product after just paying for a similar, inferior product. For example, those who wasted \$79 on *Hippo-C*, tend to steal *Megamax C*. While you are refusing to pay the excellent programmers at Megamax, the author's of *Hippo C* are laughing themselves to the bank! Good programmers come and go, poor programmers are always with us. The better a programmer is, the more likely his or her program will be stolen, and the less likely she or he will make any money from it. A poor programmer knows his programs will never be stolen, and there's always a few suckers out there who will buy it without knowing what they are getting. Many excellent programmers write one program, have it

heavily stolen, and make so little money that they can't afford to write any other programs. Want to see more and better software? Pay for the freeware/shareware and commercial programs you use. It's that simple. Stealing software is stealing from yourself -- by eliminating the programmers income, you also eliminate the possibility of other software being developed.

-- Ralph Walden, ACE BBS SYSOP (503)343-4352

MICROLEAGUE BASEBALL II



Good sports simulations on the ST are in short supply. The majority of available sports program are arcade style eye-hand coordination oriented, and any similarly with the actual game is usually only coincidental.

Enter the ST version of *Microleague Baseball II*. This game is fashioned after the Micro League Sports Association's highly successful 8-bit baseball simulations on virtually ever other major computer.

In this game you rely totally upon statistics compiled from real players and teams. You are the manager here. You may pick the batting order and pitcher, as well as decide on game strategy such as pinch hitters and runners, base stealing, hit-and-run, and assorted defensive strategies such as relief pitchers, positioning the infield, pitch-outs, etc. You make all of the decisions a real manager makes, and then rely upon a wealth of built-in statistical algorithms to see how it all comes out. The results are shown animated real-time, play-by-play. Furthermore, at the conclusion of the game a detailed box score appears on the screen as well as instructions for compiling and/or printing the stats.

In this newest version for the ST, *Microleague Baseball II* has some enhancements not found in earlier versions. The algorithmic base also seems to have been expanded and, in some cases, corrected. The results are amazingly life-like. The graphics are sensational and the animated sequences of "striking out", "sliding into base", as well as the "arguments with the umps" [another new wrinkle] are realistically comical. My favorite is a sequence where the batter is called out and throws up his arms in disbelief. The graphic scale of the players has been reduced in size on the ST, but the resolution and extra colors improve the overall effect tremendously. Additionally, *Microleague ST* includes a quick-play mode as well as an implementation of power failures and rain delay. The latter is accompanied by a variety of songs which include "Rain Drops Keep Falling on My Head" and, eventually, "Here Comes the Sun".

I noticed that the game play is much faster on the ST than on the 8-bit Atari. Not only do the players move faster but you can check and manipulate your lineup instantaneously without more disk I.O. In spite of the increase in speed, however, some timing problems remain, with runners arriving at the base way before or after the ball -- with the play being called opposite what is shown. This is a minor annoyance, and probably it cannot be helped since the distance the ball must travel is variable even though the rate of speed of the ball, the speed of the runner, the distance around the base paths are computer constants.

I found several other enhancements on this version worthy of comment. For example, The Computer Buddha Manager is not as predictable on the ST version. In fact, the computer does a very good job with basic game strategy. In several situations I felt that I was up against Casey Stengel.

I also found that pitchers behaved much more realistically. Some of my starters survived a rocky start only to "settle down" to finish a superb game. In another instance, my pitcher's "breaking stuff" was getting nailed. He got through the game anyway relying almost entirely on his "fast ball" and scattering 12 hits -- a realistic occurrence.

MicroLeague Baseball II includes a quick-play mode in which the algorithms are used continuously without graphics. An entire game in the quick-play mode takes about a minute to play.

In conclusion, this is a good game for a baseball enthusiast. It is realistic and exciting and offers enough true-to-life options to make it infinitely variable. I say, without reservation, that this game is the most true to life simulation of a sports event I have seen on a computer. I enjoy it and predict many others will also.

-- Graham Smith, ACE Vice President

LAST HACKS

(reprint: Michigan Atari Magazine, February, 1987)

Micro is a real-time operator and dedicated multi-user. His broad-band protocol makes it easy for him to interinterface with numerous input/output devices, even if it means time-sharing. One evening he arrives home just as the sun crashes, and parks his Motorola 68000 in the main drive (he missed the 5100 bus that morning), when he notices an elegant piece of liveware admiring the daisy wheels in his garden. He thinks to himself, "She looks user-friendly. I'll see if she wants an update tonight."

Mini is her name, and she is delightfully engineered with eyes like COBOL and a Prime mainframe architecture which sets Micro's peripherals networking all over the place.

He browses over to her casually, admiring the power of her twin, 32-bit floating point processors and inquires "How are you, Honeywell?" "Yes, I am well," she responds, batting her optical fibers engagingly and smoothing her console over her curvilinear functions.

Micro settles for a straight line approximation. "I'm stand-alone tonight," he says. "How about a computer vector to my base address? I'll output a byte to eat, and maybe we can get offset later on."

Mini runs a priority process for 2.6 milliseconds, then transmits "Ok, I've been dumped myself recently, and a new page is just what I need to refresh my disks. I'll park my machine cycle in your background and meet you inside." She walks off, leaving Micro admiring her solenoids and thinking, "Wow, what a global variable. I wonder if she'll like my firmware?"

They sit down at the process table to a top-of-form feed of

fiche and chips and a bucket of Baudot. Mini is in conversational mode and expands on ambiguous arguments while Micro gives occasional acknowledgments, although, in reality, he is analyzing the shortest and least critical path to her entry point. He finally settles on the old "Do you want to see my benchmark routine?" But Mini is again one step ahead.

Suddenly, she is up and stripping off her parity bits to reveal the full functionality of her operating system software. "Let's get BASIC, you RAM," she says. Micro is loaded by this stage, but his hardware policing module has a processor of its own and is in danger of overflowing its output buffer, a hang-up Micro has consulted his analyst about. "Core," is all he can say. Micro soon recovers, however, when she goes down on the DEC and opens her device files to reveal her data set ready. He accesses his fully packed root device and is just about to start pushing her CPU stack, when she attempts an escape sequence. "No, no!" she pipes. "You're not shielded!"

"Reset, Baby" he replies. "I've been debugged."

"But I haven't got my current loop enabled, and I can't support child processes," she protests.

"Don't run away," he says, "I'll generate an interrupt."

"No, that's too error prone, and I can't abort because of my design philosophy."

Micro is locked in by this stage, though, and he cannot be turned off. But she soon stops his thrashing by introducing a voltage spike into his main supply, whereupon he falls over with a head crash and goes to sleep.

"Computers," she thinks as she compiles herself, "All they ever think of is HEX."

ARC QUESTIONS



The following is a list of the most commonly asked questions about the 8 bit version of ARC and ARCX.

Q: When I run ARCX, the disk drives run, the screen goes off, and then nothing happens. I have to hit System Reset to get out of it.

A: ARCX does as much work in memory as possible. This means a long time can go by before it actually starts writing to your disks. Let ARCX run -- if two minutes go by without any activity, then you have problems.

Q: When I deARC the file, it has a duplicate 128 byte block at the end.

A: ARC and ARCX have no concept of "blocks". If you get a garbage block, or a duplicate block, then the person who ARCD the file had a bad file to begin with. This commonly occurs when a terminal program and a BBS don't agree on how to end the file transfer.

Q: Since almost all files are "squeezed", wouldn't it be easier just to forget about the "stored" and "packed" method in order to speed up the ARCing process?

A: The "stored" length is the actual file length, so very little

calculation is done to get this value. All input is "packed" before being "squeezed". The result is, all three types of compression are known as soon as ARC calculates the "squeezed" length with no additional overhead. I have tried "squeezing" an unpacked file, and it ends up larger.

Q: Couldn't you make a special 130XE version so you can add the "crunched" routine to the other three?

A: I could, but it doesn't make much sense. It will eliminate the possibility of a 64K RAM disk, tying the entire I/O to floppy disks. Between this and the constant swapping of bank memory will make a very slow ARC. On the ST I implemented a more efficient version of "crunched" than the standard ARC found on ST's, IBM's, etc. The result is a full implementation of "crunched" with no need for the "squeezed" routine. The problem with "crunched" is the need for a 30K buffer area. It could be reduced 5K by using a 3 byte data type, but neither C or any other 8 bit language supports a 3 byte data type. This means I need to do it in assembly. There are other problems, though less severe, such as the need to do long integer division, having to use note and point to fill in the header information, etc. Needless to say, it is not a project I relish doing. I am implementing the "crunched" routine in assembly on the ST, and when completed I will at least consider porting it over to the 8 bit.

Q: Could you implement a version to allow the user to swap disks?

A: I could, but it's not practical. You'll have to swap disks 15-20 times to extract a full single density disk. You will not find many ARC files which cannot be extracted on a single density disk, and this is reduced even further if the "crunched" routine is used. For example, the ACE BBS which has about 4 megabytes of 8 bit .ARC files, only has 1 file which cannot be extracted with a single density disk.

Q: Would ARC and ARCX be faster if they were written in ACTION?

A: Probably not. ARC uses recursive function calls (the function calls itself) which is difficult to do in ACTION. Most of the time critical functions are written in assembly, which is faster than ACTION. Even rewriting the entire code in assembly would have little speed improvement over version 1.2. The main limitation now is the speed of the disk drives and the speed of the microprocessor. Currently, ARCX is about 9 times slower than ARCX on the ST. That's pretty good when you consider the disk drives are 10 times slower, and the microprocessor is 6 times slower.

In the works, I will at some point in time be writing a program to allow you to list the filenames and their sizes within an .ARC file. This will be quite efficient when used under Sparta DOS which has a better note and point routine than Atari DOS. If used under Atari DOS (or compatible), it will require reading in the entire file. I will be doing an ARCX with query, where you are asked for each file as to whether you want to extract it or not. If enough people request it, I can also implement a version of ARC and ARCX that require a password to extract the file. I may, at sometime in the future, write an ARC program completely in assembly in order to implement the "crunched" routine.

-- Ralph Walden, ACE BBS SYSOP (503) 343-4352

ANTIC Copyright Policy!

I hope this article will be published by other user groups nationwide. I think it is time we encourage a letter writing campaign to *Antic Magazine*, much the same way as they encouraged us to do so in an effort to get more 8 bit software produced by Electronic Arts a couple of years ago.

As many of you may know I run the *HELP BBS*, a purely PUBLIC DOMAIN BBS. It is extremely difficult to find good quality PUBLIC DOMAIN software for our computers on a regular basis. Antic magazine prior to April of 1984 did not claim copyrights to their software printed as type in programs in their magazine, but in an attempt to force users to type in their programs or buy their DISK issues has decided they own exclusive rights by virtue of copyright to their programs.

I can certainly understand their claiming copyright laws to their programs, this should only be expected. However they refuse to allow these programs to be placed on any type of PUBLIC ACCESS BBS for downloading, or to be placed in any Club library without prior written permission. Having been refused by virtue of not receiving an answer to my request I assume no one is going to get such permission. Supporting this conclusion is the fact their EDITOR wrote to the MACE club and demanded all ANTIC programs be removed from their BBS under penalty of law.

Some of you may know that ANTIC is a member of the SPA, Software Producers of America. The forming of this organization was to track down and to prosecute BBS around the country who were placing Commercial software on their systems for downloading. I heartily agree with their idea, and support them fully, being a software producer myself. However, I do not see why Antic magazine can't adopt the same practice as Analog magazine of allowing their programs to be placed on public BBS and in Club libraries in the month the magazine was printed for.

I want to point out Analog Magazine also sells DISK issues, so there is a possible loss of revenue for them as well as Antic. I also have to admit I am tired of reading the IO column <reader feedback> in Antic and seeing them hype their programs. I can't blame them for wanting to make money, but what is their CATALOG for anyway?

For those who want to write to Antic magazine, please address your letters to the attention of:

James Capparell
c/o Antic Magazine
524 Second Street
San Francisco, Ca. 94107

In your letter be sure to indicate you feel Antic should allow their type in programs to be placed on BBS and in CLUB libraries in the same manner as their most fierce competitor ANALOG magazine. Maybe with this type of input they will see past the dollar sign of selling a DISK issue into the future of retaining their readership!

I want other clubs to pick up this article and reprint it in their newsletter! We need more than one voice to get a response, we did it once before when ANTIC cried for our help! Now we
CONTINUED ON PAGE 11

Reprinted from Page 6 of England.

TRAIN CRAZY

By Collin Faller

Welcome to TRAIN CRAZY, the game that will have you jumping mad. Your character is Oscar the Ostrich. Oscar is not only plain crazy but Train Crazy as you will find out.

Oscar prefers the fresh air and likes to travel on top of the train. No problem of course until the train comes to a tunnel when Oscar has to run for his life! What makes things worse is the Railway Company don't like birds travelling on top of their trains and so have hung several chains from the overhead wires to deter the 'roof-riders'. They have also hung up some tempting diamonds in the hope that Oscar will jump up and crack his head, but Oscar is smarter than that and can often grab the diamonds for himself.

To help Oscar survive you must duck under the chains and jump up and collect the diamonds as well as jumping between carriages and avoiding the tunnel! The higher the level, the more obstacles there are and you will find it harder to get the diamonds as you progress. At the end of each level, Oscar will jump off the train and your score will be displayed. You will then start the next level or, if you have lost a life, re-start the existing level. Oscar has five lives each game.

PLAYING THE GAME: The game is loaded in two parts.

Part One loads the character set and scrolling routine and draws the train. It will take about 33 seconds. When this listing is RUN it will load Part Two automatically.

After about initialisation of Part Two, you will hear the train whistle and will then be ready to play. Use a joystick in port 1 and press either the Fire button or START key.

JOYSTICK MOVEMENTS: UP-will make Oscar jump up to catch diamonds, jump over obstacles and jump from carriage to carriage. DOWN-Makes Oscar duck to avoid the hanging chains.

FIRE BUTTON: Each time you press the Fire Button, Oscar will move forward. If you take your finger off he will move back with the train. If you don't keep him moving he will go in to the tunnel and lose a life.

SCORING: When you first the game, you are given 28 Energy Units but these decrease as the game progresses. Each time you get a diamond, you get 200 points and an extra 3 Energy Units so you must collect diamonds to complete the game. Each diamond collected will be displayed at the top left of the screen. When the game is over you will be rated.

To play again, press either the START key.

TYPING IT IN: Type in both listings. 400/800 owners should make sure they change line 10 of listing 2 as indicated in the REM stmt for that line. Save the first listing with SAVE "D:TRAIN" and the second listing on the same disk with SAVE "D:CRAZY". To play the game type RUN "D:TRAIN".

```

1 REM #####
2 REM #          TRAIN CRAZY (PT.1)
3 REM #
4 REM #          BY
5 REM #          COLIN FALLER
6 REM #
7 REM #          PAGE 6 MAGAZINE - ENGLAND
8 REM #
9 REM #
10 REM #
11 ? #6;"      TRAIN CRAZY"
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13 ? #6;"      8V"
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17 ? #6;"      characters 400"
18 ? #6;"      train 400"
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100 RAMTOP=PEEK(106):RESTORE 2000:ST
ART=RAMTOP-8:CH=256*START
109 REM "Characters"
110 FOR I=CH TO CH+727 STEP 7:READ A
1,B1,C1,D1,E1,F1,G1:POKE I,A1:POKE I
+1,B1:POKE I+2,C1:POKE I+3,D1:POKE I
+4,E1
115 POKE I+5,F1:POKE I+6,G1:POSITION
13,6: ? #6;39911-I; " ":NEXT I
120 FOR I=CH+776 TO CH+994 STEP 7:RE
AD A2,B2,C2,D2,E2,F2,G2:POKE I,A2:PO
KE I+1,B2:POKE I+2,C2:POKE I+3,D2
122 POKE I+4,E2:POKE I+5,F2:POKE I+6
,G2:POSITION 13,6: ? #6;39905-I; " ":N
EXT I
130 TEMP=RAMTOP-20:DM=256*TEMP:FOR I
=1536 TO 1538:POKE I,112:NEXT I:BOTT
OM=DM+2816
140 FOR V=2 TO 110 STEP 37:RESTORE 4
00:FOR X=V TO V+36:POSITION 13,7: ? #
6;112-X; " ":READ A,B,C,D,E,F,G,H
145 POKE DM+256*4+X,A:POKE DM+256*5+
X,B:POKE DM+256*6+X,C:POKE DM+256*7+
X,D:POKE DM+256*8+X,E+100
147 POKE DM+256*9+X,F:POKE DM+256*10
+X,G:POKE DM+256*11+X,H
150 POKE DM+256*4+X+111,A:POKE DM+25
6*5+X+111,B:POKE DM+256*6+X+111,C:PO
KE DM+256*7+X+111,D
154 POKE DM+256*8+X+111,E+100:POKE D
M+256*9+X+111,F:POKE DM+256*10+X+111
,G:POKE DM+256*11+X+111,H:NEXT X:NEX
T V
200 RESTORE 205:FOR V=1 TO 6:READ O:
POKE DM+256*0+O,53:NEXT V
205 DATA 20,58,97,133,168,206
250 FOR C=224 TO 255:POKE DM+256*11+
C,39:NEXT C
255 FOR O=39 TO 200 STEP 37:POKE DM+
256*3+O,248:NEXT O:FOR O=38 TO 200 S
TEP 37:POKE DM+256*3+O,247:NEXT O
300 RESTORE 500:FOR I=1578 TO 1637:R
EAD A:POKE I,A:POSITION 13,8: ? #6;15
78+59-I; " ":NEXT I
320 RESTORE 330:FOR T=1 TO 14:READ O
I:POKE DM+256*0+OI,165:POKE DM+256*1
+OI,166:POKE DM+256*2+OI,149:NEXT T
330 DATA 25,35,46,69,79,92,103,127,1
37,161,175,182,197,222
340 POKE DM+256*3+222,248
350 RESTORE 365:FOR N=41 TO 223 STEP
37:READ OP:POKE DM+256*8+N,OP:POKE
DM+256*8+N+17,OP:POKE DM+256*8+N+29,
OP
360 NEXT N:POKE 559,0
365 DATA 159,160,161,162,163
370 POKE 1575,65:POKE 1576,0:POKE 15
77,6:POKE 560,0:POKE 561,6:POKE 764,

```


MAY 1987


```

2,192
2097 DATA 198,198,124,198,198,198,25
4,198
2098 DATA 192,254,254,192,192,248,19
2,192
2099 DATA 204,198,252,198,198,198,25
2,216
2100 DATA 0,63,127,127,127,127,63,0
2101 DATA 0,255,255,255,255,255,255,
127
2102 DATA 0,252,254,254,254,254,252,
8
2103 DATA 127,127,127,127,127,127,12
7,127
2104 DATA 252,198,198,204,198,198,25
2,0
2105 DATA 195,195,102,60,24,24,24,0
2110 DATA 198,126,124,198,192,192,22
2,198
2111 DATA 24,24,198,198,198,110,60,2
4
2112 DATA 0,0,126,126,126,126,126,12
5
2113 DATA 56,16,198,198,198,198,198,
108
2114 DATA 198,124,124,198,192,124,6,
6
2200 DATA 204,248,248,204,198,198,19
8,198
2201 DATA 198,198,198,238,254,254,21
4,198
2202 DATA 24,126,24,56,120,24,24,24
2203 DATA 192,254,124,198,6,12,56,96
2204 DATA 198,124,124,198,6,28,6,6
2205 DATA 12,12,12,28,60,108,204,254
2206 DATA 198,124,254,192,192,252,6,
6
2222 DATA 0,85,0,0,0,0,0,0
2223 DATA 0,0,0,0,0,0,0,0

```

Con't next month.

Please check the newspaper under the computer section May 10th through May 13th to see if we are going to have a meeting.

The next program is from last month and because of lack of room was not printed.

```

12 POSITION 2.Y:? " Press any key
":GOSUB 14:GOTO 30
14 CLOSE #4:OPEN #4.4.0."K":GET #4.KEY:CLOSE #4:RETU
RN
20 GRAPHICS 0:DMA=PEEK(559):POKE 559.0:SETCOLOR 2.0.0
22 POKE 82.2:? "The Compactor Detector ver. 1.0
":? US
24 POKE 16.112:POKE 53774.112:RETURN
26 POKE 16.128:POKE 53774.128:RETURN
30 POSITION 2.Y:? "
":RETURN
40 Y=19:GOTO 44
42 Y=20
44 POKE 752.0:POSITION 2.Y:? "Are you sure":INPUT SU
RS:POKE 752.1:SR=SR$="Y":GOSUB 30:RETURN
50 GRAPHICS 2:POKE 16.112:POKE 53774.112:DMA=PEEK(559
):POKE 559.0:SETCOLOR 2.0.0:? #6;" the compactor"
60 ? #6;" detector":? #6
70 ? #6;" VERSION 1.0"
80 ? #6:? #6:? #6;" by"
90 ? #6;" roy goldman"
95 POKE 752.1:POKE 82.2
100 ? " FIND OUT WHETHER THAT DISK WAS"
110 ? " SCRUNCED. MASHED. SHRUNK."
120 ? " OR CRUSHED"
130 ? " >>>PRESS START<<<":
135 POKE 559.DMA
140 A=PEEK(53279):IF PEEK(53279)=6 THEN POKE 764.255:
GOTO 150
145 GOTO 140
150 CLR :DIM FILES(120).TEMP$(20).NAME$(35).CMP$(10).
DIR$(11).ADJ$(20).EXT$(5).REN$(40).SUR$(1).DRIS$(5).NE
TS(20)
155 DIM MSG$(30).MAN$(40).NATEMS(25).DOT$(25).US(22):
US=CHR$(13):US(22)=US:US(2)=US:US(4.4)=" ":US(14.14)=
" "
160 GOSUB 20:? :? " Press 1-8 for Disk Directory"
165 ? :? "Enter name of file to check":? "(FILENAME.
EXT or Dn:FILENAME.EXT)":? :IF PEEK(559)=0 THEN POKE
559.DMA
170 INPUT FILES
175 GOSUB 3000
185 TRAP 1100
190 CLOSE #1
195 POKE 752.1
200 GOSUB 26:OPEN #1.4.0.FILES
201 GOSUB 24
210 FOR A=1 TO 5
220 GET #1.1:CMPS(A)=CHR$(1)
230 NEXT A
233 CLOSE #1
235 POKE 752.0:IF CMPS(3.5)="♥♥♥" THEN GOTO 500:REM C
RUSHER
236 IF CMPS="♥♥♥♥♥" THEN 270:REM MYDOS
237 IF CMPS(1.2)="♥♥" AND CMPS(4.4)="♥" THEN GOTO 296
:REM BASIC
240 IF CMPS(1.1)="♥" THEN GOTO 300:REM SCRUNCH
250 IF CMPS(1.2)="♥♥" THEN GOTO 350:REM MASH
260 IF CMPS="♥♥♥" THEN GOTO 400:REM SHRINK
265 IF CMPS(1.2)="♥♥" THEN GOTO 450:REM OBJECT CODE
270 GOSUB 20:POKE 82.1
274 POSITION 1.3:? FILES:" was neither Scrunched.":PO
SITION 1.4:? "Mashed. Shrunk. nor Crushed."
275 ? "It is not a SAVED BASIC program or ":? "stand
ard object code."
277 ? "It may be a self-booting ML file."
280 ? "such as DOS.":? "It also may be a file set up"
:? "specifically to be used in "
282 ? "conjunction with another program.":? "such as
pictures and data tables."
283 ? "It may be non-tokenized. such as":? "LISTED BA
SIC programs."
284 ? "Also. try any newer compaction"
285 ? "programs besides those supported by ":? "this
program until a newer version of"
287 ? "The Compactor Detector is written."
288 POKE 752.1:POKE 82.2:? :? :? "Press any key"
289 POKE 559.DMA:GOSUB 14
290 ADJ$=FILES:INIT=6:CHOI=6:MAX=11:GOSUB 20:? :? :?
:? :GOTO 760
296 GOSUB 20:? :? FILES:" is a SAVED BASIC":? "progra
m.":? :EXT$="BAS":GOTO 750

```



```

300 GOSUB 20:? :? FILES:" was SCRUNCHED.":? :? :EXT$=
"SCR":GOTO 750
350 GOSUB 20:? :? FILES:" was MASHED.":? :? :EXT$="MS
H":GOTO 750
400 GOSUB 20:? :? FILES:" was SHRUNK.":? :? :EXT$="SH
R":GOTO 750
450 GOSUB 20:? :? FILES:" is OBJECT code.":? :? :EXT$
="OBJ":GOTO 750
500 GOSUB 20:? :? FILES:" was CRUSHED.":? :? :EXT$="C
RS":GOTO 750
750 GOSUB 4000:REM SET UP FILENAME
752 TRAP 753:INIT=6:CHOI=6:IF EXT$=ADJ$(CHK+1.CHK+3)
THEN MAX=11:GOTO 760
753 MAX=13:ADJ$(CHK+1.CHK+3)=EXT$
755 ? " Automatically Rename"? " :FILES:" to "
:ADJ$(4)
760 ? " Rename ":FILES
763 ? " Lock ":FILES
767 ? " Unlock ":FILES
770 ? " Run The Compactor Detector"
780 ? " Quit to BASIC"
790 ? " Quit to DOS"
792 POSITION 2.16:? " Use arrow keys to move pointe
r":? " Press <RETURN> to select"
793 POSITION 2.22:? " Press 1-8 for Disk Directory
":POKE 559.DMA
795 TRAP 860
798 CLOSE #4:OPEN #4.4.0."K":POKE 752.1
800 POSITION 2.CHOI:? "----"
810 GET #4.CHAR
812 IF CHAR>48 AND CHAR<57 THEN DIR$=CHR$(CHAR):TRP=1
:GOSUB 3500:GOSUB 12005
815 IF CHAR=45 THEN CHOI=CHOI-1
820 IF CHAR=61 THEN CHOI=CHOI+1
825 IF CHOI<INIT THEN OLC=1:CHOI=MAX
830 IF CHOI>MAX THEN OLC=1:CHOI=INIT
832 IF CHOI=7 AND MAX=13 AND CHAR=45 THEN CHOI=6:POS
TION 2.8:? " "
834 IF CHOI=7 AND MAX=13 AND CHAR=61 THEN CHOI=8:POS
TION 2.6:? " "
835 IF CHAR=45 THEN 850
837 IF CHAR=61 THEN 855
840 IF CHAR=155 THEN 900
845 GOTO 810
850 IF OLC=1 THEN POSITION 2.INIT:? " :OLC=0:GOTO
800
852 POSITION 2.CHOI+1:? " :GOTO 800
855 IF OLC=1 THEN POSITION 2.MAX:? " :OLC=0:GOTO 8
00
857 POSITION 2.CHOI-1:? " :GOTO 800
860 POKE 752.1:POSITION 2.14:GOSUB 30:POSITION 2.12:P
OKE 752.0:GOTO 795
900 IF CHOI=6 AND MAX=13 THEN 2000:REM AUTO RENAME
910 IF CHOI=8 AND MAX=13 THEN 2500:REM RENAME
913 IF CHOI=9 AND MAX=13 THEN 6000:REM LOCK
917 IF CHOI=10 AND MAX=13 THEN 6100:REM UNLOCK
920 IF CHOI=11 AND MAX=13 THEN GOTO 150:REM RUN
930 IF CHOI=12 AND MAX=13 THEN GRAPHICS 0:CLR :END
940 IF CHOI=13 AND MAX=13 THEN DOS
950 IF CHOI=6 AND MAX=11 THEN 2500:REM RENAME
953 IF CHOI=7 AND MAX=11 THEN 6000:REM LOCK
957 IF CHOI=8 AND MAX=11 THEN 6100:REM UNLOCK
960 IF CHOI=9 AND MAX=11 THEN GOTO 150:REM RUN
970 IF CHOI=10 AND MAX=11 THEN GRAPHICS 0:CLR :END
980 IF CHOI=11 AND MAX=11 THEN DOS
1100 Y=10:GOSUB 10000:Y=8:GOSUB 30:POKE 752.0:POSITIO
N 2.8:GOTO 170
2000 REM AUTO RENAME
2010 REN$(1.LEN(FILES))=FILES:REN$(LEN(FILES)+1.LEN(F
ILES)+1)="":REN$(LEN(FILES)+2)=ADJ$(4)
2012 GOSUB 40:IF NOT SUR THEN 795
2018 Y=19:TRAP 2030
2020 GOSUB 26:XIO 32.#5.0.0.REN$:GOSUB 20:GOSUB 10:GO
SUB 12000
2030 GOSUB 10000:GOTO 795
2500 Y=19:POKE 752.0:POSITION 2.Y:? "Enter new name":
:INPUT NET$:POKE 752.1:IF NET$="" THEN GOSUB 30:GOTO
795
2505 NATEMS=FILES:FILES=NET$
2510 GOSUB 3020
2515 NET$=FILES:FILES=NATEMS
2517 TRAP 2500
2520 MAN$(1.LEN(FILES))=FILES:MAN$(LEN(FILES)+1.LEN(F
ILES)+1)="":MAN$(LEN(FILES)+2)=NET$(4)
2530 TRAP 2530:GOSUB 42:Y=19:GOSUB 30:IF NOT SUR THE
N 795
2560 TRAP 2030
2570 GOSUB 26:XIO 32.#5.0.0.MAN$:GOSUB 24:GOSUB 10:GO
SUB 12002
3000 REM ADJUST FILENAME
3002 TRAP 3020
3005 IF VAL(FILES)<>INT(VAL(FILES)) THEN 3020
3010 IF INT(VAL(FILES))>0 AND INT(VAL(FILES))<9 THEN
POKE 752.1:DIR$=FILES:TRP=0:GOSUB 3500:GOTO 150
3020 TRAP 3040:IF FILES(2.2)="" THEN TEMPS=FILES(3):
FILES(1.3)="D1":FILES(4)=TEMPS:GOTO 3250
3030 IF FILES(3.3)="" THEN GOTO 3250
3040 TEMPS=FILES:FILES(1.3)="D1":FILES(4)=TEMPS
3250 TRAP 3300
3260 FOR SPA=4 TO 15
3270 IF FILES(SPA.SPA)="" THEN FILES=FILES(1.SPA-1):
GOTO 3300
3272 IF FILES(SPA.SPA)="" THEN GOSUB 3400:RETURN
3275 IF ASC(FILES(SPA))<>46 AND SPA=12 THEN DOT$=FILE
$:FILES(12)="" :FILES(13)=DOT$(12.14)
3280 NEXT SPA
3300 RETURN
3400 FOR SPA=4 TO 15
3410 IF FILES(SPA.SPA)="" THEN FILES=FILES(1.SPA-1):
GOTO 3300
3420 NEXT SPA:RETURN
3500 REM DIRECTORY
3505 DIR$(1.1)="D":DIR$(2.2)=DIR$:DIR$(3.6)=".*. *"
3509 GOSUB 20:? :? "Directory of Drive #":DIR$:":PO
KE 752.1:POKE 82.0:? :POKE 559.DMA:TRAP 3600
3510 CLOSE #3:GOSUB 26:OPEN #3.6.0.DIR$:GOSUB 24
3520 TRAP 3560
3530 INPUT #3.NAMES:? NAMES.
3540 INPUT #3.NAMES:? NAMES
3550 GOTO 3530
3560 CLOSE #3:POKE 82.2:? :Y=PEEK(84):GOSUB 12:POKE 7
52.0:RETURN
3600 GOSUB 24:? CHR$(253):" I/O ERROR
":Y=PEEK(84):GOSUB 12:GOSUB 16000
4000 REM ADJ
4105 TRAP 4200
4110 FOR CHK=4 TO 12
4120 IF FILES$(CHK.CHK)="" THEN ADJ$(1.CHK-1)=FILES(1
.CHK-1):ADJ$(CHK.CHK)="" :RETURN
4125 IF FILES$(CHK.CHK)="" THEN ADJ$=FILES:RETURN
4130 NEXT CHK
4200 ADJ$=FILES:ADJ$(LEN(FILES)+1)="" :CHK=LEN(FILES)
+1:RETURN
6000 TRAP 6000:GOSUB 40:IF NOT SUR THEN 795
6010 TRAP 6500:GOSUB 26:XIO 35.#5.0.0.FILES:GOSUB 20:
GOSUB 10:GOTO 795
6100 TRAP 6100:GOSUB 40:IF NOT SUR THEN 795
6110 TRAP 6500:GOSUB 26:XIO 36.#5.0.0.FILES:GOSUB 20:
GOSUB 10:GOTO 795
6500 Y=19:GOSUB 10000:GOTO 795
10000 POKE 752.1:GOSUB 24:ERR=PEEK(195):MSG$=""
10010 IF ERR=170 THEN MSG$="File Not Found"
10020 IF ERR=165 THEN MSG$="Bad File Name"
10030 IF ERR=164 THEN MSG$="Scrambled File"
10040 IF ERR=160 THEN MSG$="Drive Offline"
10050 IF ERR=163 THEN MSG$="Unrecoverable I/O Error"
"
10060 IF ERR=167 THEN MSG$="File Locked"
10100 POSITION 2.Y:? CHR$(253):"ERROR #":ERR:MSG$
10110 FOR PAUSE=1 TO 250:NEXT PAUSE
10120 GOTO 30
12000 FILES=ADJ$:GOTO 12005
12002 FILES=NET$
12005 IF EXT$="BAS" THEN 296
12010 IF EXT$="SCR" THEN 300
12020 IF EXT$="MSH" THEN 350
12030 IF EXT$="OBJ" THEN 450
12032 IF EXT$="CRS" THEN 500
12035 GOTO 290
16000 IF TRP=1 THEN GOSUB 12005
16010 GOTO 150

```


want like to see the same cooperation from Antic!

WRITE TODAY!!!

[Editor's Note: I believe Antic has always copyrighted their original programs. Some confusion might be caused because Antic for many years included many public domain programs in their type-in listings. The right to distribute those public domain programs from Antic never has extended to their copyrighted programs. If a copyright holder permits distribution of a program by a BBS to anyone who calls, the copyright will be lost forever. The only way they can maintain their copyright is to prohibit such copying. Antic may well have contracts with authors of copyrighted materials which can be violated by Antic either permitting or acquiescing in the distribution of those programs by BBS. -- JB]

--Leo Newman, HELP BBS SysOp (316)0683-7514

FIRST CADD



First CADD, Generic Software Inc., Redmond WA
- Included on the disk is a conversion program to convert files from PC to Atari format and vice versa for use with **First CADD** and **Generic CADD**.

Your drawings are produced to real scale. The drawing can also be printed to real scale to your printer. That is feet and inches or tenths of feet or metric. This is all taken care of when you set up the drawing for the first time. You are prompted for the version you want. These can be divided up into very small portions depending on your setup procedure.

The drawing screen is divided up into the following parts:
DRAWING AREA -- this is where your drawing will be created. A vertical line on the right hand side separates this from the **MENU** area and a horizontal line towards the bottom separates the drawing area from the input **PROMPT** area. **MENU** commands are selected by mouse. These are the actual drawing commands you will use to create the drawing. The **PROMPT AREA** displays the command you have picked by the mouse and information about the drawing including the amount of ram still available to you. It also shows you the layer you are on and info on the line style, type and color you are using. This area may be turned off if you wish so you may see more of your drawing. Two letter commands are input in this field which correspond to commands, or file manipulation. At the very top of the screen is found a line of text which shows the user the coordinates of the cursor in X and Y format. Also shown here is the Dx and Dy coordinates. These are the relative coordinates from the last point you created on your drawing to the tentative next point.

Within the drawing area you will find a crosshair moving about the screen with the use of the mouse. It is used to enter data points for construction of lines, circles, etc. The drawing cursor size may be changed to fit your desire. (The left mouse button is used here for data input)

Almost everything you do requires you to first pick a drawing, or file manipulation command. If one gets into trouble the good old ESC key works wonders. Automatic functions produce the following types of figures:

Rectangle of width and length you choose in your drawing. Polygons require three types of data: the center of the polygon, a point of the polygon (actually a vertice), and the key in of the number of sides. A two point circle can be specified by a center point and a point on the circumference. A three point circle is specified by three points on the circumference. A three point arc is drawn by specifying three points on the arc. The first point becomes the beginning of the arc, the second determines the radius, the third is the end of the arc. A four point arc with first, center, starting point of the arc, the direction, and lastly the end point on the arc. Ellipses are specified by the length and location of major axis and the length of the minor axis. A complex curve can be defined as a curve passing through many points. Upon specifying three or more points the computer figures out where the curve is to be drawn. This element is considered as one element not a bunch of small arcs.

The program comes with only one font. You may if you wish create your own fonts of up to 255 characters. Text Size may be 1" or 12" or whatever. Text may be rotated to any angle desired. If you don't like the command words the program uses, you may change them to fit your fancy. This is done with a word processor.

This program allows you to draw in 256 layers. That's alot! The display of these layers may be turned off or on. You may display any combination of layers you wish. You might only want to see or plot the floor plan and the plumbing plan only. All you have to do is turn off the layer display you do not want to see.

All elements of a drawing have construction points associated with them. You can move those points around for a perfect fit. Zoom and Pan commands let you view any part of your drawing at almost any scale. "Cells" or components are a collection of elements which can be kept as a separate entity and recalled and placed elsewhere. They may even be used by a different drawing file. These guys can be scaled, rotated and saved. There are tolerance commands which are set up together with the Snap to Tolerance and the Snap to Nearest Point commands. This defines an area around the drawing cursor within which certain snaps may occur. Snap to Tolerance -- this toggle which determines whether or not you want two points within the tolerance value forced to be horizontal or vertical in alignment is used for those accurate lines. Snap to Nearest Point -- enables you to snap to the very end of lines so when you draw your lines they will have the same end points. The computer will compute the distance between any two points in your drawing. If it is a line you may use the Snap to Nearest Point command so you will get the true dimensions of your line. The computer will measure the angle between two lines and give you a readout in the status display area. The program appears to use the double meridian distance concept to determine areas. If you have a circle you will have to define, using this command, a lot of small straight lines about the circumference of the circle to get fairly accurate areas. You can define the 10 function keys for the most used commands. This makes it easier to just push a function key instead of hunting through the menus.

I use a very high end computer and software every day at my work and trying to compare these two together doesn't seem fair. It's tough to compare \$50 to \$85,000 in software and come up with a good recommendation. I do recommend this program

to anyone interested in CADD. The ease of use and price tag is self evident. The only thing I can say is, "Why don't these third party software developers use the GEM drawing routines in their programs?" This still goes unanswered. Overall I like this program. It allows me to draw things to scale and plot them out to a printer for home use and possibly make some money doing it. P.S. I sure wish it had auto dimensioning capabilities and a variety of fonts available. Again the fonts can be designed by you for your use. The next nearest program to this one is called The Draftsman but the cost is way out of my price range.

-- Steve Warn, Helena, MT

DMA PORT EXPLORED

(reprint: PSAN, April, 1987)



For those of you who have gnashed your teeth about the I/O limitations of the St -- take heart! Using the capabilities of the DMA port, you can go from a simple 16-bit I/O port to a full-blown DMA channel, depending on your needs. The most difficult part about using the DMA channel is deciphering the unclear and incorrect information about the DMA controller chip. Here's the stuff I've been able to figure out. Using this info I've been able to build a 512 x 256 pixel frame grabber which acquires an image in one frame.

First, the bit assignments in the DMA control register at \$FF8606: Writing to the register sets the bits. Reading the register yields the DMA status. Writing \$88 to the DMA control register gives access to the "hard disk controller register". What this means is reading or writing to \$FF8604 when \$88 is in the register activates the chip-select and the read/write lines of the DMA connector. Of course, R/W is only activated if you write something to the HDC register. At the same time, bit 2 of the DMA register is routed to the A2 output of the DMA connector. Using this info, you can easily build a 16-bit I/O port. I built one using two 74LS00's for decoding, two 74LS273's for latching the data, and two 74LS244 tri-state buffers for inputting data.

Bit 8 of the DMA register will clear the DMA status if it is toggled: Either hi/low/hi or low/hi/low works. At the same time, the R/W output of the DMA connector is strobed low -- but chip select is NOT. If needed, you can decode this condition and use it as a reset to external logic.

Writing \$18 or \$188 to the DMA register gives access to the sector-count register at \$FF8604. If this register is not set prior to attempting DMA, you will not get the expected amount of data transferred -- if any. To calculate what value to put in the sector-count register, simply divide the # of bytes by 512 -- the number of bytes/sector. By the way, DMA handshake will still occur, even if the DMA is not storing the information in memory. So the sector-count register is a critical part of proper DMA transfer.

Writing \$108 or \$8 to the DMA register enables DMA write/read. To read info from a frame grabber, for instance, you write \$8 to the DMA control register. If you examine BIOS listing for the floppy-disk I/O in the back of the Abacus book *Atari ST Internals* you will discover a completely different

set of bit patterns needed for floppy-disk DMA. One oddity is the bit pattern for allowing DMA to occur also gives you access to the FDC registers. This is not the case for HDC DMA. I discovered a "gotcha" associated with the vertical blank handler and DMA also.

The symptom is an apparent "timeout" occurring. If I wait too long between activating the DMA channel and transferring data, DMA does not occur, or occurs erratically. The problem, I discovered, is the interrupt routine which checks the floppy drive status resets the DMA control register to access the floppy disk controller and turns the DMA off! The solution is to set VBLSEM at \$452 to zero. This disables any vertical blank processing. Just be sure to restore VBLSEM at the end of the DMA cycle. I have been able to obtain DMA rates up to about 1.5 MBytes/sec. The literature claims "up to 1 MByte/set" (Abacus), but the rest of their info is inaccurate, too. The frame grabber I built routinely does bursts of 16KBytes at 1.3 MHz with no problem at all.

Now that the mystery has been taken out of using the DMA port, I want to see some good applications: Eprom programmers, general HDC controllers, floppy disk emulator in RAM, coprocessors, GPIB, etc. What about it?

-- Mark Kimball, PAC member

The OASIS BBSsystem



"It's time for an upgrade!" said I. Having run an Atari bulletin board which had become one of the "elder statesman" among bulletin boards in San Antonio with virtually the same format for three years an upgrade was more than due, it was a necessity. Like most SYSOPs, I want a system with slick, well-executed features to make the competition sit up and cry. I began evaluating BBS software in a fashion that many SYSOPs overlook during the search for THE ideal system. This time I looked at systems from the users point of view. I was surprised at what I had come to desire. Waiting time was the PITS even at 1200 baud. Loading modules, loading messages, waiting for menus to finish listing to enter a command just wasn't cutting it anymore. Users had become more sophisticated since the good 'ol days. So had I. As a SYSOP my criteria was refined to the point I had little patience for system errors. This is in line with my philosophy: A SYSOP's time should be reserved for creativity on the system itself and not consumed in the maintenance & repair department. Having acquired assistant SYSOPs over the years remote functions were important as well as any feature designed to allow ease of maintenance. After reading, talking to SYSOPs, and actually testing several existing systems I settled on the *OASIS Bulletin Board System* by Renner, Ralph Walden, and Leo Newman. After five months of use I'm convinced the system is the currently the best available on the 8-Bit Atari line.

CONFIGURING - I obtained my copy of *OASIS* through Leo Newman of the HELP BBS in Wichita, KA and found it fully configured for a single disk drive when it arrived. This is a nice touch for that SYSOP just itching to get it "up & running". There were a couple documentation files on the back side of the disk which I promptly printed out and began to follow. It

wasn't too long before I found one of the weaknesses of the *OASIS* System was the documentation. While adequate in some areas, others leave much to be desired. I find I read documentation a little more closely than most people. I found the documentation to be the single biggest source of problems during the configuration process. Configuring takes longer than most other systems because there are more support files than most other boards require. The BBS itself is written in DVC/65 (thanks to Ralph Walden) and a great deal of flexibility is gained through the use of the many supporting files. During the configuration process the support files can be defined as either RAM-resident ".RES" files or disk based ".SUP" supporting files. Obviously placing these on a RAM-disk is advantageous in terms of speed, and the *OASIS* system is characteristically fast.

Two files play key roles in the functioning of this system. *SETUP.RES* is the primary configuration file. It determines which drives are active, user time limits and privileges, the location of the message bases and how they'll be handled, and the modem configuration. *MESS.DAT* contains the user prompts and is prime candidate for customization by the *SYSOP* to meet his/her desires.

For those of you familiar with *BBS Express!* this system is very similar, and affords a great deal of flexibility. *OASIS* is designed for use with Hayes compatible modems, *AVATEX* modems, and allows for entry of other modems using reset codes other than *ATZ*. Interfacing is possible with the Atari 850 Interface, *ATR-8000/8500*, and the new *MIO* by *ICD, Inc.* The recommended *DOS* is *SpartaDOS* from *ICD, Inc.* and this *DOS* has performed flawlessly in conjunction with this system.

Careful configuration can result in a BBS which provides excellent 80-column support, a feature the *ST* crowd has come to appreciate. This is possible due to parsing of the transmitted text using screen width from 20-100 characters per line. Other options include locking out guests, new applications and 300 baud users on certain days.

CAPABILITIES - Once configured, operation is smooth and extremely fast. Welcome messages for both *ATASCII* & *ASCII* callers and optional *VT52* color welcome messages for *FLASH!* users are supported. Bulletins are shown once and then turned off until reset by the *SYSOP*. Viewing of the bulletins is possible at any time from the main menu.

Download functions are well-implemented throughout. There are actually five primary file areas which can each possess different attributes set by the *SYSOP*. Four specialized bases can be set for a variety of download methods. These include *XMODEM* (Both *AMODEM* style and *CRC*), *YMODEM*, and *Text*. The number of options here require that the *SYSOP* plan well in advance during configuration. The main *D/L* file area provides for downloading "by the numbers" instead of requiring filenames to be typed in. Filenames are alphabetized by drive, and execution of the protocols is faster than usual thanks to coding in "*C*".

Eight regular bases and one E-Mail message base are permitted. E-Mail is automatically checked on logon. Checking of all E-Mail entries is also made for valid member names. This checking really solves the problem of misdirected mail so common on other systems. The message editor isn't as

full-featured as those found on other BBSs, but recent upgrades have added parsing and a search and replace function.

Operation of the message bases is unique. There is no *POINT-NOTE* data to get scrambled (sequential access used?). I've yet to have a message base waxed. Message bases can be limited to any size under 100 messages and access time is slowed somewhat as the bases get larger. A new message feature is quite popular with my users and speeds up each session allowing for more users to call. Message base compression can be set to occur either manually or automatically. The automated version occurs with each logoff and only in the message bases specified during configuration. Message bases are at the heart of any BBS and the *OASIS BBS* does an admirable job in this area.

OTHER FEATURES - The board is hot-keyed throughout permitting immediate execution of commands even while a menu is listing. This feature really appeals to experienced users. Online *HELP* is available for the less experienced folks as are the usual listings of other BBSs. The user can redefine screen width and translation modes at anytime, and short prompts save time for expert users. These parameters are saved in the users profile for future use. A status command permits viewing of privileges, file transfers, and call data. Limited editing is permitted.

SYSOP FUNCTIONS - In my search for the ideal BBS much consideration was given to ease of operation from a *SYSOP* standpoint. *OASIS* allows online validation and easy editing of a user privileges. The *SYSOP* can drop into one of two *SYSOP* menus permitting most *SpartaDOS* functions, manual message base compaction, resetting of date & time, and various other BBS parameters. The terminal mode is a feature setting this board apart from others, and it permits access to the *U/L-D/L* protocols as well as providing easy modem access.

The wait-ring mode provides a graphic depiction of the number of messages in each base including deleted items. Totals for the number of calls, new messages, file transfers, and type of callers is also provided. The *SYSOP* can electively lock out guests, new *P/W* applications, 300 baud callers, and toggle the chat mode to ring for the *SYSOP* or state their absence. Online time, file transfer status, and current date/time are also provided in the well thought out display.

Validation of passwords can be accomplished either online or through the use of a password editing utility. The utility permits searching based on call dates, and other utilities produce an alphabetized *SYSOP* *P/W* listing or user list for posting on the BBS. Sorting of the listings is extremely fast thanks to the speed of the "*C*" language. I might add: No knowledge of "*C*" is necessary to use this system.

With a user online the *SYSOP* can reset elapsed user time to zero, send a user through the password application, and log the user off politely or rather abruptly. In the chat mode four *SYSOP* definable macros can be sent through a simple control key sequence. This permits the standard phrases like "Catch 'ya later..." and "Validating your *P/W*..." to be sent with ease. A *SYSOP* may also read the E-Mail base as a regular message base. This permits easy maintenance. All messages may be deleted, undeleted and locked. There are two *SYSOP* levels to permit limited access for assistant *SYSOPs* if desired.

From an operators standpoint the *OASIS* system is superior to all other bulletin boards I've seen to date, and this was the decisive factor in my decision to reconfigure with *OASIS*.

SUPPORT - Product support means a lot to me. In most cases it's all hype. I'm pleased to report: Support for this system, by way of the *HELP BBS*, is nothing short of excellent. Upgrades are frequently posted for downloading by registered *SYSOPs* and mainly consist of new features and occasionally a fix for a bug. In terms of reliability the *OASIS* system is hard to beat. I have yet to have a system crash that I could attribute to the board itself -- most were created by yours truly. To a harried operator like myself, I prefer jazzing up the *BBS* to trouble-shooting. This system delivers reliability at a level to which I'm totally unaccustomed.

CONCLUSIONS - The users of any bulletin board are the bottom line when it comes to evaluation. From them I've heard nothing but praise for the system. My users have crowed about this system to other *SYSOPs* in the area to the point four other boards have made the conversion. The other *SYSOPs* feel the same as I do about this system -- in a word "OUTSTANDING!"

Despite a lengthy configuration and weak documentation the *OASIS Bulletin Board System* remains, in my opinion, the best available for the 8-bit Atari. I recommend first-time *SYSOPs* to consider another system due to the above, but for the experienced system operator it sells itself. Oh yes, I almost forgot -- the cost? -- all of \$15.00!

OASIS Bulletin Board Software is available through two sources: Leo Newman by way of The *HELP BBS* in Wichita, KA (316) 683-7514, or Ralph Walden at The *ACE BBS* (Eugene OR *ACEs*) (503) 343-4352.

Editors note: The above mentioned documentation problem has been corrected in new updated documentation supplied with the *OASIS Bulletin Board*.

-- Dave St. Martin



I hope this will be the first of a regular column reviewing materials we have in the library. Do not expect any technical reviews of what we have, I cannot do that as I am one of those legions of computer illiterates. In fact, the only reason I still have this one eyed monster is that Ralph Walden and a few others took me under their wing and showed me how to get something out of the *ST*.

By the next issue, Ralph and I should have completely revamped the library. We are currently in the process of archiving files. This compresses the files so they do not take up as much room. No information is lost and the files can easily be dearchived. This should give you more for your money when you purchase disks from the *ACE ST* library.

The first program I wish to review is *Dcopy* -- a shareware program by Ralph Walden. *Dcopy* is a utility, meaning it helps

you to do something else. This program was written in assembly language so it is very small and very fast. I would have written a review of the program before, but Ralph keeps updating it. The latest version is *Dcopy 1.82*. Ralph assures me that version 1.9 will be done in about two weeks.

Dcopy has a built in extraction routine which will easily dearchive files onto one disk or from one disk to another for those of you that have a two disk system. For this reason, an unarchived copy of *Dcopy* will be included on all library disks that have arced material on them.

Dcopy is extremely easy to use. When you click on it, your screen will fill with letters and numbers. Beside each letter or number will be a short explanation of what that letter will accomplish. Even novices like me do not have to read the directions to try it out. In fact, to test it Ralph brought a copy over to the house, had me boot it up without reading the documentation and forced me to use it. After we (really he) worked out some bugs, I got a complete set of the documentation to read. Do not be afraid to try *Dcopy* without reading the documentation, but please read them to get the most use out of the program.

Being *ACE* librarian, the function that I use the most is the *Z* command. This allows me to copy one disk to another by pushing *Z*. *Dcopy* automatically formats the blank disk the same as the source disk and then copies all files and folders from the source disk to the destination. Older versions of *Dcopy* allowed you to select 81 tracks and 9 or 10 sectors. Version 1.82 and all others will not allow this. Atari informed us that all drives will not read 81 tracks and that the disks we have are rated for only 80 tracks. There is a real possibility of losing material if you try the extended formats.

Another handy feature is the *T* command. As many of you know, word processors do not all add the same type line feeds and carriage returns. That is why if you try to read some files outside the program the words are all run together. The *T* command allows you to read most files simply by running it through *Dcopy*. There is no messing around finding the right program or trying to figure out what is on the screen.

Of course, *Dcopy* will do many other useful things like: Format disks, copy material, check the space on your disks, read the disk directory and send the information to the printer for a hard copy, search for a file or program and much more.

Give *Dcopy* a try, after a while you'll find more and more use for it. When you do, send a donation to Ralph to help encourage him to write more programs for the *ST*. The address is in the documentation.

KRABAT Chess - Years ago, I used to belong to a chess club and thought I was pretty good. I have lost interest and playing partners over the years, and have often threatened to purchase one of the commercial chess programs so I could get back on my game. In fact, my wife almost bought me one at Christmas time but bought me a modem instead. Am I ever glad she did.

Krabat is set up with many different skill levels and 5 different openings programmed in. The program is not three dimensional, but for me this does not matter. The pieces are well defined and it is hard to mistake one for the other. The

game is extremely user friendly, and will allow you to take back moves if you completely blow it. I personally have never done this, I'm too honest. Was that lightening I just heard?

To this date, I have spent most of my time on skill level one. I have gotten so I can beat the program about 50% of the time, so I made one foray to level two. The game play and strategy were completely different. On each succeeding level, the computer takes more time to make its move and the games get tougher.

If you have never played chess on a computer, prepare to be lost at first. It takes some time getting used to seeing the screen flat in front of you. You will soon get used to this, so don't let it discourage you.

This is another of the programs included on the Best of Ace disk #2. In my humble opinion this makes the disk worthwhile if there was nothing else on it. This program can be run on both monochrome and RGB screens. It is set up for color on the disk, so boot it up and enjoy.

-Mike Rogers, ACE ST Librarian

MIDI-MAZE

(reprint: Michigan Atari Magazine, April, 1987)

I hate kids! Well, not all kids. The small ones who can't handle a joystick are ok (I guess). But those other ones.... Like that little 10-year-old girl standing in front of me in line at the *Midi-Maze* game. She has blond hair, a cute red dress, and a ribbon in her hair. All she does is giggle! She looks up at me and gives me this cute little smile. But I know she's just trying to mess with my mind, trying to psych me out. I put on my best Dirty Harry face and growl at her! She just giggles some more and takes her place behind an ST computer. We are about to compete in the world's first *Midi-Maze* contest. *Midi-Maze* is written by Xanth Software, and is being distributed by Hybrid Arts, the folks who have all the midi-music stuff. And no wonder, since this game uses the midi port on the ST to allow up to 16 computers to be connected to each other so 16 players may compete at once! Hybrid Arts, along with Casio, have donated a Casio synthesizer, plus software, valued at over \$800, to be given away as first prize. So this is a serious contest, with lots of eager players waiting their chance to play. This is no place for kids! (Geez, does she have to giggle all the time?) Suddenly, the game begins. I start dashing around the maze, and soon sneak up on an unsuspecting player. Two quick shots and he disappears!

Midi-Maze is sort of like Pac-Man. We each control a round balloon with a Happy Face painted on it. If the Happy Face is looking at you, then you know your opponent can see you too. It's possible to sneak up on another player when his back is turned, then shoot 'em in the back. We are placed in a 3D maze, and all we see are the walls. The object of the game is to move the player around the maze looking for other players. By pressing the joystick button, we launch a round ball of energy at the opponent. With a satisfying popping sound, you know you have hit your mark.

I'm in the lead now, but the green player is right behind me. I turn the corner and blast another poor Happy Face. The screen is divided into three sections. The larger portion contains the

actual maze. We have a "rat's eye" view of the maze, so all we see are long hallways and walls. The upper corner contains the status chart. As we kill an opponent, our "marker" moves up the chart to the top. We are also shown the status of all other players. The first person to kill 10 Happy Faces wins the game. The more popular name for this game is "Kill a Happy Face". Near the side of the screen is a list of players you killed. This isn't really needed, just something to fill up the screen, I guess. It looks like a two way race now between me and the green Happy Face! Just then I hear this giggle. I peek over at the kid and notice she is putting on a glove. Not just any glove. This is a custom made, patent leather joystick glove! And I notice on her screen, SHE is the green player!

"Hey Ref, look at this" I scream, pointing at her hand. "Nothing in the rules about that," he says, with this big grin on his face. Ok, this kid is dead meat! NO MERCY! I just hope she doesn't go crying to her mother when....

Just then a green energy ball shoots past my face, missing me by just inches! I spin around and dash down a hallway, around a corner, right into a dead end alley! I turn around just in time to see this green Happy Face come around the corner with guns blasting. I didn't last long. Then I hear this giggle again. I look down and she is giving me this big snot-eating winner's grin. Then she giggles some more and runs off to find her mother. I make a silent promise to drive over every bicycle I find parked too close to the street from now on!

Fighting back tears, I search for Frank Foster, president of Hybrid Arts, to get some more information about the game. The maze we just played on was designed by Neil Harris. Neil snuck into an early round of the tournament and plastered everyone! The players just kept mumbling "Who is this guy?" (No kidding!) Neil has played this game at other AtariFests, and has lots of experience. Frank tells me *Midi-Maze* will soon be released (April 1) for \$40. Although it is much more fun to hook up 16 STs, you can still use this with one. The computer can play with up to 16 computer-controlled players. Adding other STs is very simple to do.

A rumor has it an 800 telephone number might be available to call up and play against other players. This was even printed in the local newspaper! But Frank tells me it is not true. The maze itself can be designed by the player by simply creating a new data file. The one being used on the tournament was designed to have some wide-open areas for a free-for-all type battle, and a few long hallways for the braver players.

Anyway, this game is a huge success, and Hybrid Arts plans to have it at most of the other AtariFests around the country. Well, after a long day looking at booths, and playing several more games of *Midi-Maze*, I finally decide to head back to my hotel room. But first I want to stop at the Analog booth to get one of their latest Analog magazines. As I walk up to the booth, the man says "Sorry, I just gave the last copy out." Just then I hear this giggle. I look down to see the same blond kid with the red dress and the ribbon in her hair reading the LAST copy of Analog. She looks up and gives me the same snot-eating grin, then goes back to reading the magazine. "You don't happen to own a bicycle, do you?" I ask.

-- Jerry Cross

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